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(72) Shouldice, Robert B., CA

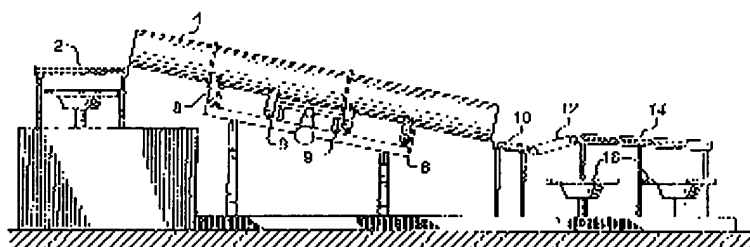
(73) Shouldice Cement Products Limited, CA

(51) Int. Cl.<sup>6</sup> B41F 11/06, C04B 14/28, B28D 1/00

(54) **PIERRE ARTIFICIELLE ET METHODE ET INSTALLATION  
POUR LA PRODUCTION DE CELLE-CI**

(54) **ARTIFICIAL STONE AND METHOD AND APPARATUS FOR  
PRODUCING SAME**

*plus petit  
tumbler.*



(57) An artificial stone having a chiseled, rough hewn look on the edges, corners and irregular faces of the product, is produced by preparing a concrete block and then fracturing it, preferably along one plane, to produce a somewhat rough face along the fracture. The fractured block is then placed into the upper end of an inclined rotating cylindrical tunnel, the tunnel having at least one and preferably two internal longitudinal ribs to initially lift the block and then produce tumbling as the tunnel rotates, the block gradually moving along the tunnel towards a lower exit end. The multiple impacts and abrasions within the tunnel produce the desired degree of additional texturing and rounding of corners and edges, to provide the desired natural aesthetic appearance. Preferably, one or both of the angle of the tunnel and the speed of rotation are adjustable, to permit variations and optimization.



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This invention relates to the production of an artificial stone, starting from a conventional concrete block made from a conventional concrete block manufacturing machine.

5 The manufacture of concrete or cement blocks is a well-known conventional process. However, cement blocks are generally not very appealing visually. The inventor recognized that there was a need for an artificial stone which could be produced in quantity and at reasonable cost, via a process similar to conventional cement block manufacture, but  
10 with additional steps to produce an aesthetic appearance, with a strong resemblance to natural stone, i.e. with a chiselled, rough-hewn look on the edges, corners and exposed faces of the product.

The inventor first tried a number of processes, without success. The first process involved a flat skid plate on a sixty degree angle. The product bounced and rolled down the skid plate, and piled up at the bottom. This process failed to achieve the desired result.

A second process involved hammers on wheels, the hammers beating the face of the product as it passed by on a conveyor belt. This also failed.

A third process used the same conveyor belt, but with percussion heads mounted on the rods of air cylinders. The percussion heads were thrust into the face of the product as it passed by, activation of the percussion heads being controlled by "electric eyes" sensing the arrival and departure of the product. The cylinders were mounted at various angles to provide the appearance of random impacts. The end appearance of the product was nearly acceptable, but  
25 suitable production volumes could not be achieved.

A fourth process used wheels similar to those on a paddlewheel boat, which picked up the product and dropped it on the other side. Experiments were conducted with up to four paddlewheels in line, but again the results were  
30 unsatisfactory.

A fifth process involved a screen on a slight angle, to which vibrators were installed to bounce the product as it passed over the screen. This also failed. At this point, the

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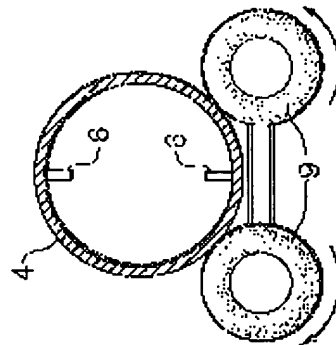


FIG. 4.

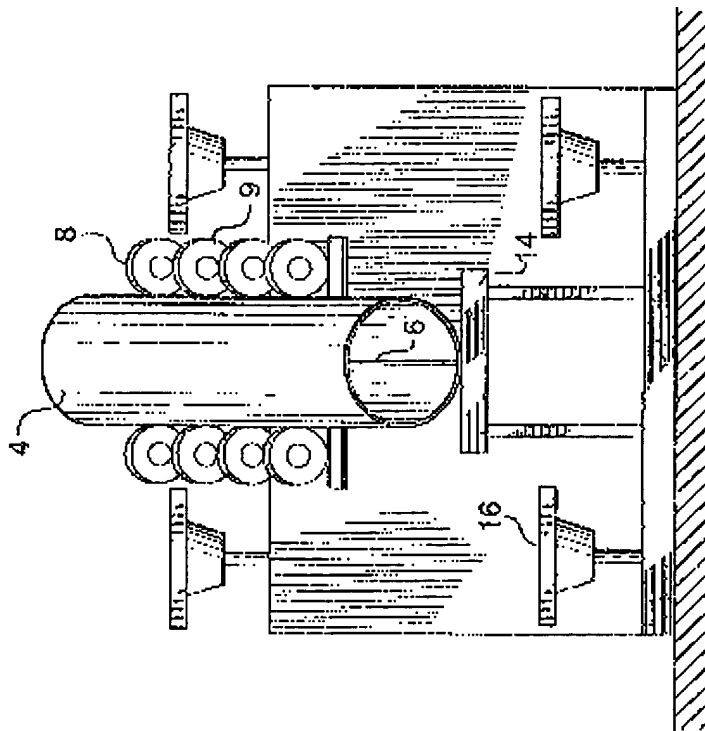


FIG. 3.

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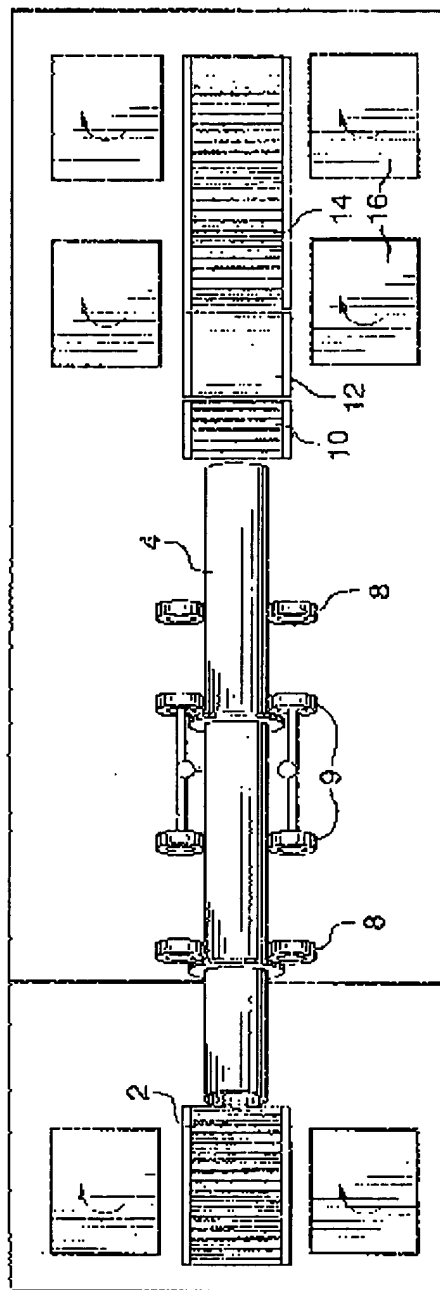


FIG. 2.

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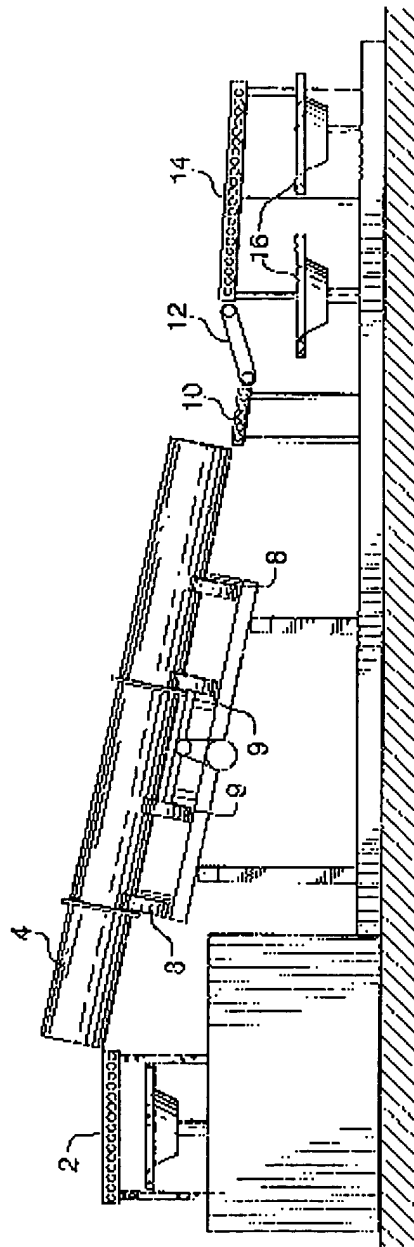


FIG. 1.

